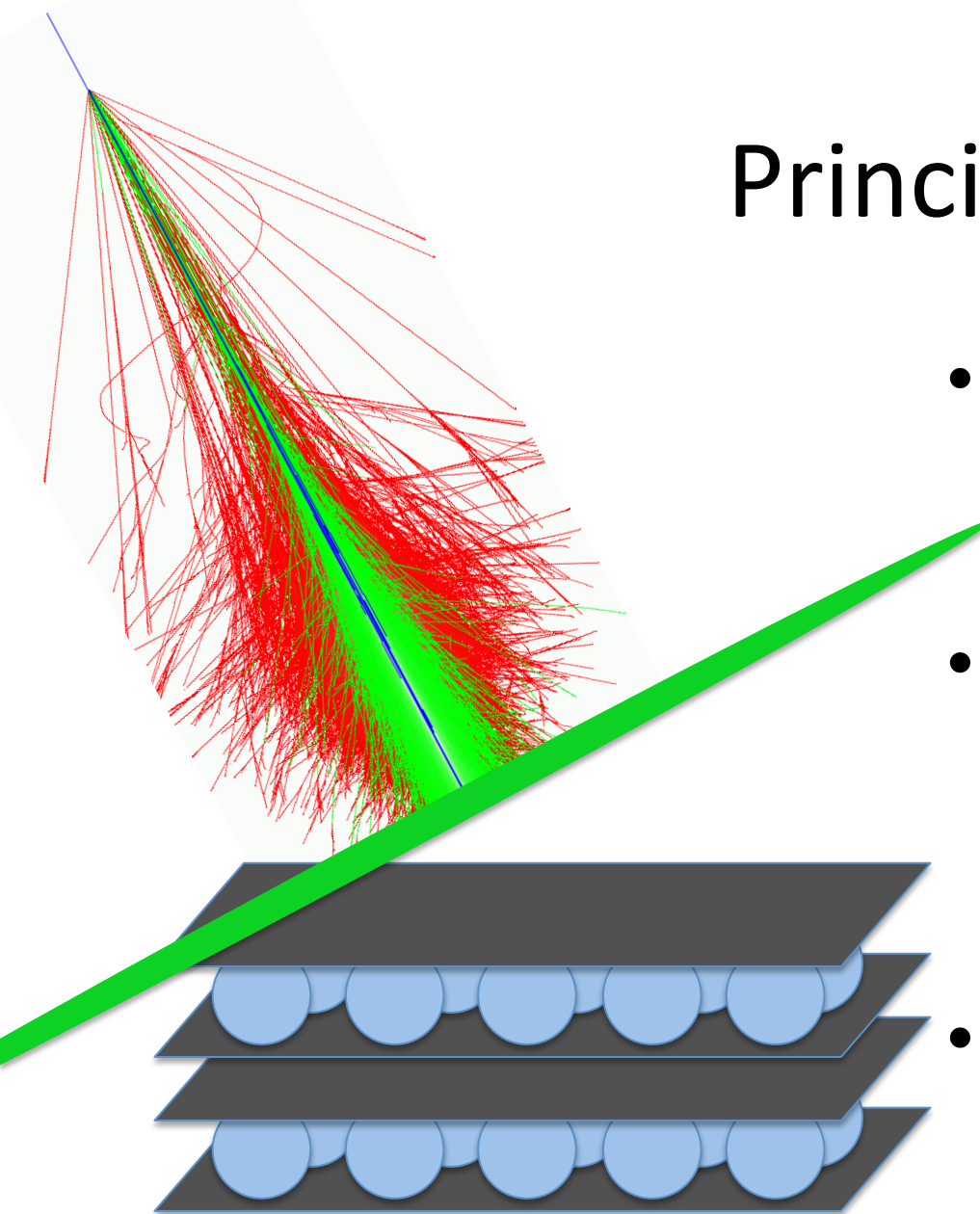# Muons in dark room data
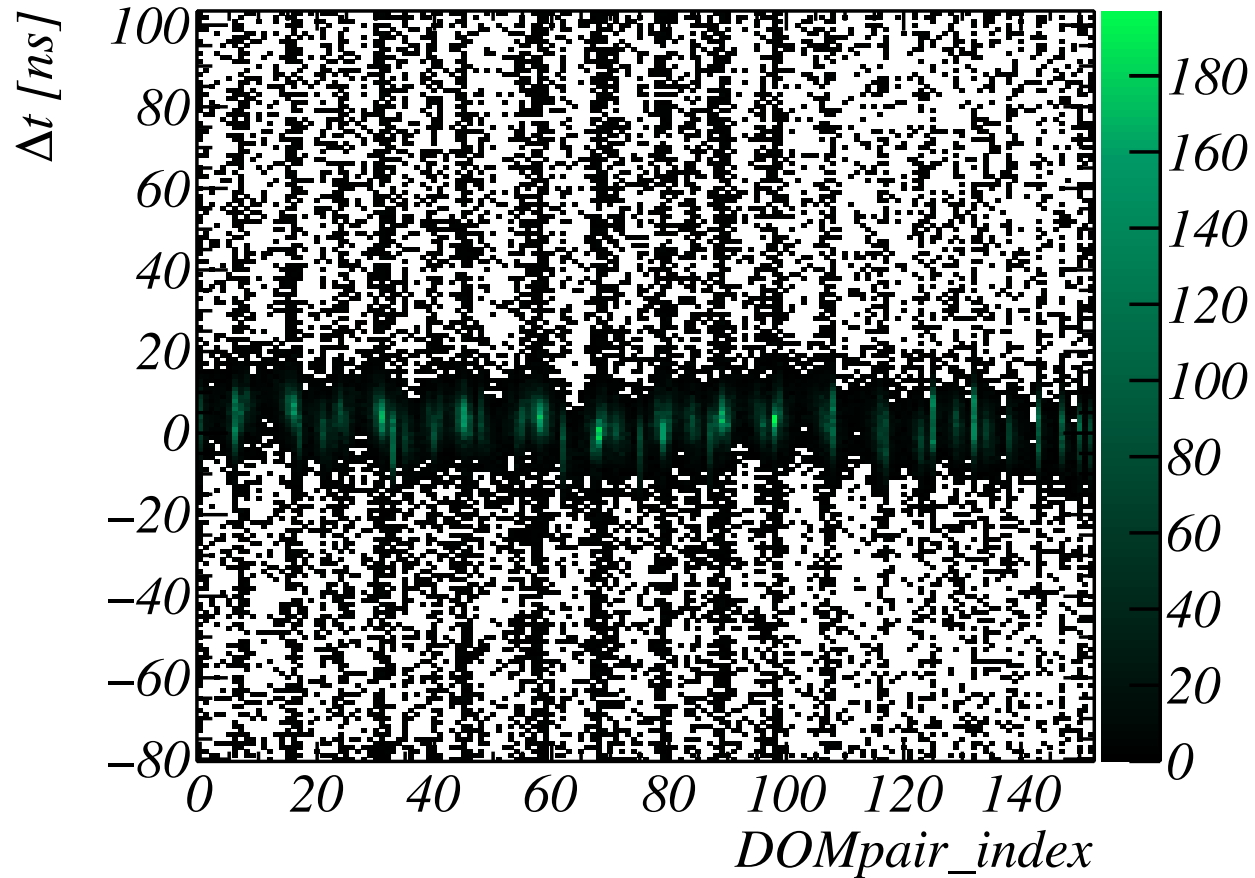
All credits go to Dorothea & Ronald

Principle
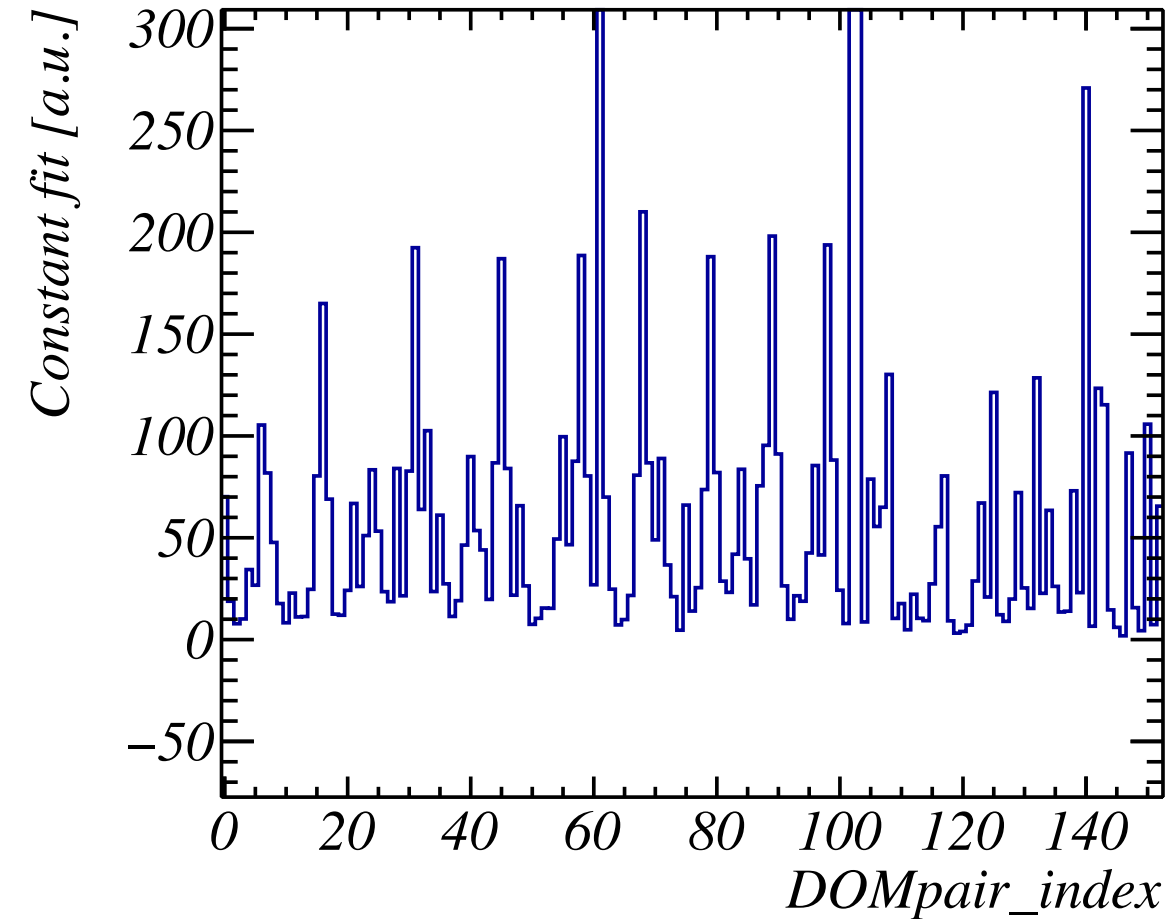

- Air showers hit DOMs (nearly) azimuth-symetric

- Mean time-difference between DOMs in horizontal plane zero

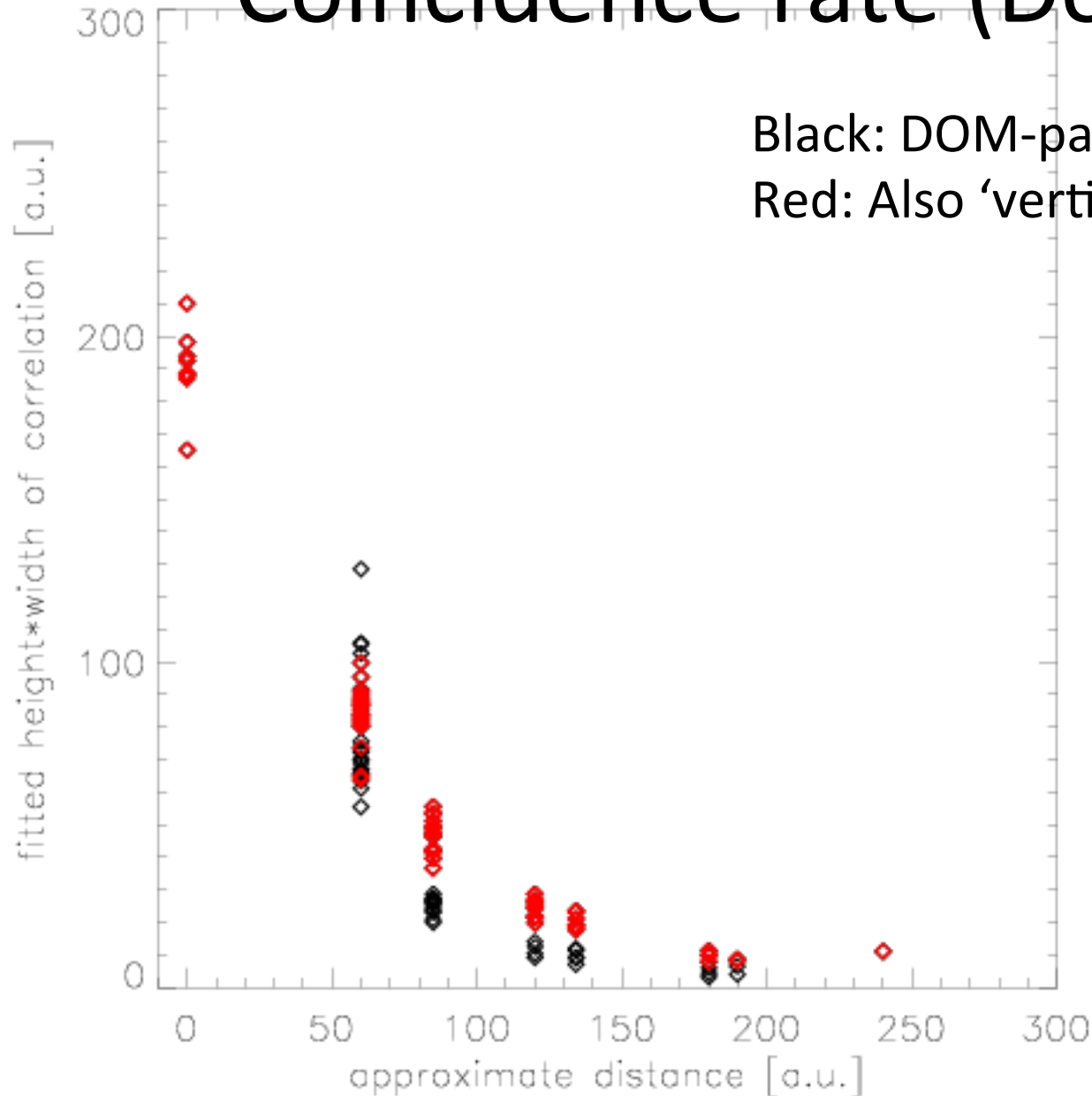- Strong correlations between close DOMs

Coincidence rate

1 2 3 4 x
8 7 6 5 x
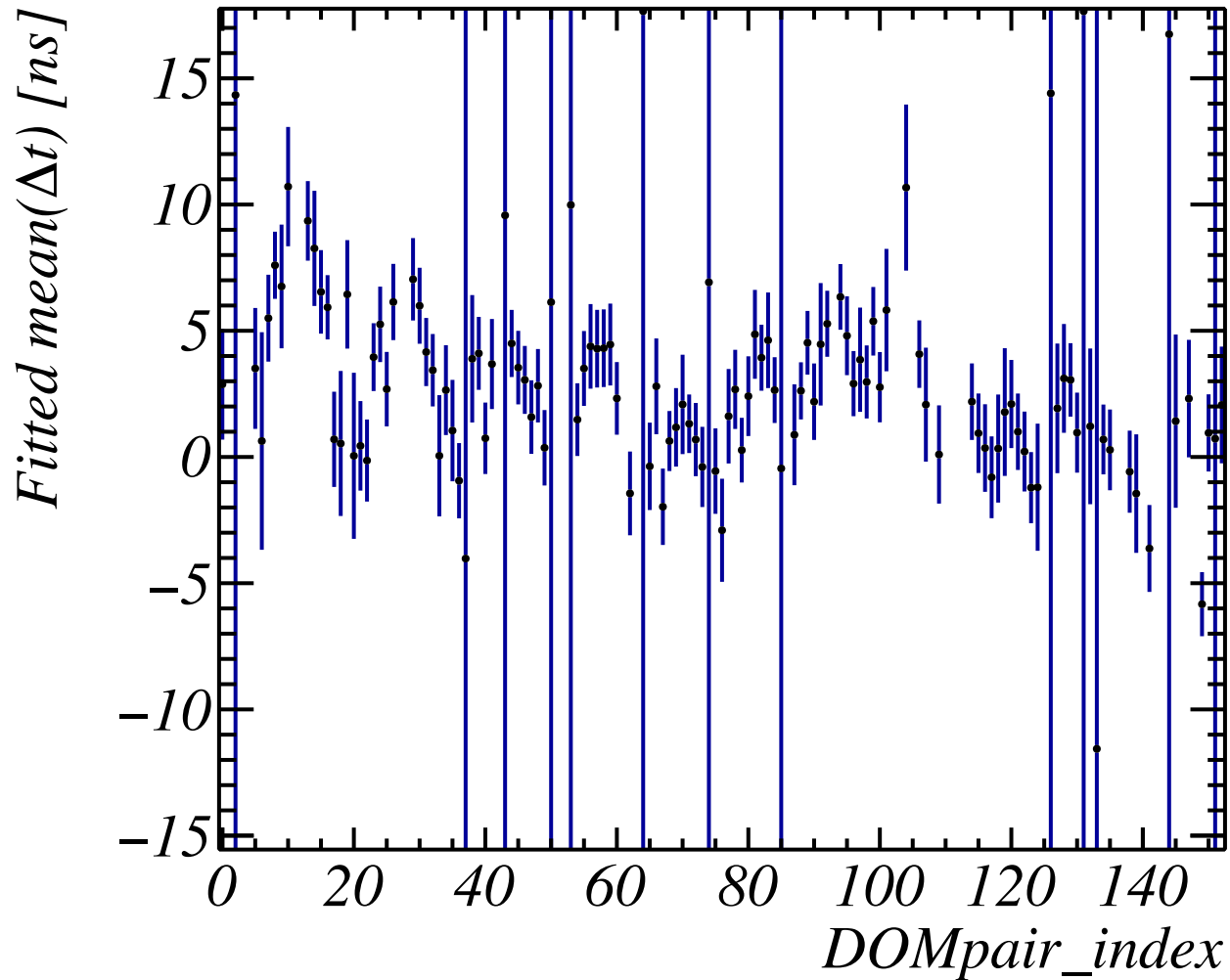
18 17 16 15 14
9 10 11 12 13

Coincidence Rate


```
1    2    3    4    x
8    7    6    5    x

18   17   16   15   14
9    10   11   12   13
```

Coincidence rate (Dorothea)

Black: DOM-pairs in horizontal plane
Red: Also 'vertical' DOM-pairs

Time difference

Outlook

- More statistics needed
- Laser-runs are definitely needed
- Muons are nice cross-check

- Compare 'muon' calibration with laser calibration